A Children’s Hospital Like No Other
UCSF Benioff Children’s Hospital at Mission Bay to Open on Feb. 1, 2015

More than a decade of planning and building will come to fruition on Feb. 1, 2015, when the 183-bed UCSF Benioff Children’s Hospital at Mission Bay opens its doors.

Realizing UCSF’s vision of building one of the world’s most innovative health care centers, the children’s hospital is part of a $1.5 billion hospital complex that includes a women’s hospital offering cancer care, specialty surgery and a 36-bed birth center, and a 70-bed hospital for adult cancer patients. The combination of children’s, women’s and cancer services will facilitate a continuity of care for patients, with mothers of at-risk infants delivering immediately adjacent to the neonatal intensive care unit, and adult and pediatric oncologists working side by side.

Another integral part of the hospital’s unique design can be found immediately beyond its walls: UCSF’s vibrant and vital Mission Bay campus and biotechnology hub, where academia and industry come together for leading-edge, lifesaving research. By locating the hospital complex across the street from the research campus, UCSF has the opportunity to transform health care by translating scientific discoveries into improved patient care through the already strong culture of collaboration between clinicians and scientists.

This kind of innovative thinking was part of the planning process from the start. “Our goal has been to create a children’s hospital like no other – to go beyond what’s been done anywhere else,” says Cindy Lima, executive director of the UCSF Mission Bay Hospitals Project. “Not only are we offering state-of-the-art patient care embedded in an environment of scientific discovery and innovation, but we want a child to come in and feel comfortable – to know it’s a place where they belong and that it’s not scary. So the goal of the design is to provide a sense of wonderment and to learn about health while healing.”

To that end, the children’s hospital will incorporate the most advanced approaches to patient comfort, healing and safety, and will offer a full array of visitor amenities, including on-site family housing. The hospital will also be home to some exciting new clinical programs, including the nation’s first fully comprehensive twins center of excellence. It also features the only hospital...
Case Study: Transcatheter Pulmonary Implant Gives Options to Patients with Congenital Heart Defects

When a child born with tetralogy of Fallot absent pulmonary valve syndrome was not quite 2 months old, a cardiothoracic surgeon at UCSF Benioff Children’s Hospital closed his ventricular septal defect by inserting a tube fitted with a human homograft valve between the right ventricle and pulmonary artery. At age 3, the boy underwent another open procedure to replace the first homograft valve.

For the next decade, he lived without limitations in his Bay Area suburb.

But as the boy approached his 14th birthday, a Holter monitor uncovered data that indicated the valve had begun to outlive its usefulness. Though the boy felt fine, his community physicians began speaking to the family about choosing between another open surgery and a Melody® transcatheter pulmonary valve implant, a procedure that had been developed in the intervening decade.

Ultimately, the family decided on the transcatheter procedure, in which the interventional cardiologist uses a balloon catheter to insert a new valve and stent inside the old valve. Once the catheter is in place, the cardiologist expands the stent and valve to create a new, functional opening.

A highly accessible, state-of-the-art facility in the heart of Mission Bay will enable us to extend and refine these treatments – and to work ever more closely with the Bay Area’s remarkable community of clinicians to better address the needs of all of our patients. We can hardly wait.

Donna Ferriero, MD  Hanmin Lee, MD  
Physician in Chief  Surgeon in Chief  
UCSF Benioff Children’s Hospital  UCSF Benioff Children’s Hospital

Perspective

In February 2015, the opening of the new UCSF Benioff Children’s Hospital at Mission Bay will dramatically expand our ability to deliver subspecialty care that has long been among the nation’s finest. Thus, our lead story covers a few things you can expect just over a year from today; the stories that follow highlight a few of our recent treatment advances.

A case study describes a 14-year-old patient with a congenital heart condition whose pulmonary valve replacement was failing. At our heart center, he took advantage of a less invasive implant option than the open procedures he’d had over a decade earlier.

Another story looks at the way our Madison Clinic for Pediatric Diabetes helps patients and families adapt to clinical advances in type 1 diabetes treatments. The advances offer improved quality of life, but also demand the type of close and expert team management that can coordinate physical and mental health care, guide patient and family education, and integrate factors from the social environment.

Yet another story highlights how we use technology to help community physicians work more closely with us in the ways in which they feel most comfortable.

Our final story examines how interdisciplinary teams at our Pediatric Heart Center integrate care across specialties, weave treatment advances into their care decisions, and coordinate with referring physicians to minimize long-term complications for everything from heart transplant to pulmonary hypertension.

A highly accessible, state-of-the-art facility in the heart of Mission Bay will enable us to extend and refine these treatments – and to work ever more closely with the Bay Area’s remarkable community of clinicians to better address the needs of all of our patients. We can hardly wait.
Interventional cardiologist Phillip Moore, MD, director of the Pediatric Cardiac Catheterization Laboratory at UCSF Benioff Children’s Hospital, and his colleagues at UCSF helped pioneer this procedure on the West Coast and have accumulated considerable experience with it.

**Faster Recovery, Less Pain**

Though the transcatheter procedure is still not widely available outside of major academic medical centers, the advantages for patients are apparent. By avoiding open-heart surgery, patients recover in four to five days, as opposed to four to five weeks, with considerably less postsurgical pain. Generally, patients return home the next day and resume full activity three to four days later.

“For some time, our goals for patients with congenital heart defects have been to make longer-lasting valves, and ones that we can implant with less patient risk. The transcatheter procedure demonstrates we’ve made good progress on the latter, but we still have a way to go on the former,” says Moore.

By avoiding open-heart surgery, patients recover in four to five days, as opposed to four to five weeks, with considerably less postsurgical pain. Generally, patients return home the next day and resume full activity three to four days later.

This patient will require ongoing monitoring, but with good follow-up care and a valve replacement every 20 years or so, he can expect a normal life and life expectancy.

*For more information, contact Dr. Moore at (415) 353-4140.*
As treatment advances offer type 1 diabetes patients improved quality of life, the trade-off is more complex management of a disease that has always placed relentless demands on young patients, their families and their providers.

At Madison:

- Physicians weigh new types of insulin and new monitoring and delivery technologies to make nuanced decisions about the best insulin regimen for a particular patient at a particular time.
- Nurses who are also certified diabetes educators coordinate the entire care process and tailor education to each family’s needs.
- Patients and caregivers continually monitor glucose levels and adjust insulin and diet accordingly.
- Diabetes-trained dietitians educate patients and families about carbohydrate counting and optimization of dietary needs for a range of social and environmental situations.
- Social workers assess the disease’s impact on family life and refer families to necessary resources.
- A clinical psychologist provides guidance for coping with a disease that engenders high depression and burnout rates, as well as difficult transitions to adolescence and young adulthood.

An Open Door for Patients

In addition, leading-edge insulin pumps and sensors give the Madison Clinic’s team and their patients a full menu of disease management options. So do a host of clinical trials aimed at preventing and curing type 1 diabetes.

In the end, however, it is the open-door relationship with patients that makes the biggest difference. “Children change all the time, so we keep a channel open…and make adjustments to their regimen as often as they need,” says Adi.

Instead of standard quarterly appointments, UCSF patients come more frequently when necessary. There are also group meetings, phone check-ins, email exchanges and the ability to upload insulin pump data onto a dedicated server. The clinic also provides reports to patients’ community pediatricians after every visit. When the clinic moves to Mission Bay, Adi expects to pioneer telemedicine appointments and phone contacts via Skype.

He says, “Managing this disease requires extreme dedication, and we live diabetes here.”

For more information, contact Dr. Adi at saleh.adi@ucsf.edu.

“Managing this disease requires extreme dedication, and we live diabetes here.”

“The best care requires a dedicated, expert team to coordinate physical and mental health care, guide patient and family education, and integrate factors from the social environment,” says Saleh Adi, MD, director of the Madison Clinic for Pediatric Diabetes at UCSF.

Collaboration Essential

The Madison Clinic – which was funded by a generous matching gift from an anonymous donor and will have a brand new facility at Mission Bay in 2015 – exemplifies this approach and builds on UCSF’s international reputation for diabetes leadership.
Technology to Improve Clinical Collaboration and Patient Care

For any business, it’s difficult to bring all the key players together in the same room at the same time to resolve a problem. It’s no different in a children’s hospital, but the stakes are much higher: the health and life of a young patient.

“That’s why we are exploring ways to foster more collaboration within medical teams – including referring physicians – and hold ourselves accountable for continuously improving communication processes that advance patient care,” says Arup Roy-Burman, MD, medical director of the Pediatric Intensive Care Unit (PICU) and director of Pediatric Transport, Access and Outreach at UCSF Benioff Children’s Hospital. Roy-Burman is spearheading a series of projects designed, he says, “to leverage the social enterprise.”

Mobile Conferencing Carts
The PICU is an ideal place to pilot the first of these projects, which tests the use of mobile conferencing carts. Because the complexity of PICU patients typically demands regular consultations by multiple specialists who cannot always be on-site together, the wireless carts – which are equipped with audio- and videoconferencing devices, high-definition cameras and access to patient’s medical records – allow the specialists to consult remotely.

“We can reach people at home and they can actually see the patient, so we can walk through the situation together and discuss subtle changes,” says Roy-Burman. “This can make a real difference in how we’re providing care.”

After the in-house pilot, Roy-Burman plans to initially use the carts with UCSF teams at San Francisco General Hospital and ValleyCare Medical Center in Pleasanton – and later at Marin General Hospital. A next step will be to deploy the carts in emergency rooms at other area hospitals. Even families of children being prepped for transfer could join a teleconference to begin their interaction with specialty teams.

“Ultimately, we would like to use the carts to invite our referring physicians virtually to the bedside, to round jointly with us the morning after admission,” says Roy-Burman.

Customer Relationship Management at the UCSF Access Center
A second pilot is a collaborative effort with cloud-computing giant Salesforce.com. This project will use proven business tools to improve relations with the hospital’s “customers” – its patients and providers. Customer relationship management (CRM) solutions will enable referring physicians to get their patients into UCSF Benioff Children’s Hospital more efficiently – and to collaborate with UCSF specialists in the ways that are most convenient for the referring physicians.

The application will build a database of referring physicians and their practices that will include frequently updated contact numbers and email addresses, how and how often the referring physician wants to be contacted, and the specialist at UCSF with whom the referring physician is working.

“On a real-time basis, it will help us understand and quickly improve our performance on essential services like transfers, transports and advice calls,” says Roy-Burman. “Our colleagues outside of UCSF should notice a real difference, and we’re hopeful that these projects will demonstrate new and exciting ways to enhance clinical integration and collaboration.”

For more information, contact Dr. Roy-Burman at (415) 476-5153.

“Ultimately, we would like to use the carts to invite our referring physicians virtually to the bedside, to round jointly with us the morning after admission.”
As survival rates following open cardiac surgery for children born with heart defects have improved, some of us have turned our attention to minimizing complications, including long-term complications,”
says Gordon Cohen, MD, PhD, chief of the UCSF Division of Pediatric Cardiothoracic Surgery and surgical director of the UCSF Pediatric Heart Center.

Cohen’s arrival at UCSF last year – along with that of fellow cardiothoracic surgeon Tara Karamlou, MD – significantly improves the ability of the Pediatric Heart Center to pursue that goal.

“We are now building a heart failure and transplant program that will expand our ability to care for children with end-stage heart or lung disease,” says David Teitel, MD, chief of the Division of Pediatric Cardiology and medical director of the Pediatric Heart Center.

**Improving Treatments for Pediatric Heart Failure**

Cohen notes that FDA approval of the Berlin Heart EXCOR ventricular assist device – the first approved VAD for small children – and the creation of a

“**New Hope for Patients with End-Stage Heart and Lung Disease**

“I can work with an expert in pediatric cardiology, cardiac intensive care or research scientists to develop new therapies for treating young patients with congenital heart disease. It’s exciting to be in a position to make these kinds of advances.”

— Gordon Cohen, MD, PhD
Gordon Cohen, MD, PhD  David Teitel, MD

pediatric heart failure and transplant program at UCSF Benioff Children’s Hospital have dramatically increased the treatment options for children in Northern California with advanced heart failure.

He says using mechanical devices as a bridge to transplant or emerging treatments – such as stem cells, growth factors and new medications – is an increasingly sensible option. “If adults can be bridged when their heart is failing, we should be able to do the same with kids.”

Pulmonary Hypertension and Beyond
In addition, the Pediatric Heart Center is taking full advantage of new treatments for pulmonary hypertension, in part by leveraging an expert team that includes world-renowned pulmonary hypertension and critical care expert Jeff Fineman, MD; pediatric cardiologist Laura Robertson, MD; neonatologist Roberta Keller, MD; and pediatric nurse practitioner Emma Olson.

“A team approach is the best way to choose from among oral medications, intravenous medications and inhalational agents that are only available at an academic medical center,” says Teitel. “Having the neonatologist involved is critically important, because so many of our lung disease patients are newborns.”

“In addition to having one of the best divisions of pediatric cardiology in the country, UCSF is one of the premier research institutions in the world,” says Cohen. “As an example of how this benefits patients, I can work with an expert in pediatric cardiology, cardiac intensive care or research scientists to develop new therapies for treating young patients with congenital heart disease. It’s exciting to be in a position to make these kinds of advances.”

For more information, contact Dr. Cohen at (415) 476-3535 or Dr. Teitel at (415) 353-4141.

Diverse Specialty Clinics in Dozens of Locales
UCSF Benioff Children’s Hospital has about 40 outreach clinics affiliated with local doctors, medical groups and hospitals. The clinics stretch from Northern California to the Oregon border. Depending on the location, these clinics serve many different clinical needs, including:

- Adolescent eating disorders
- Cancer and blood diseases
- Cardiology
- Cystic fibrosis
- Gastroenterology and nutritional disorders
- Hematology
- Intensive care

- Nephrology
- Neurology
- Organ transplant
- Orthopedics and orthopedic surgery
- Otolaryngology
- Pulmonology
- Urology

$1.75 Million Grant Funds Cancer Research
UCSF Benioff Children’s Hospital – a national leader in childhood cancer research – has received a $1.75 million grant and a Center of Excellence designation from Alex’s Lemonade Stand Foundation (ALSF). The grant enables us to enhance our research on the molecular pathogenesis of childhood cancers and translate the findings into clinical trials for new therapies designed to treat children and young adults with advanced cancer.
Children's Hospital Access Center

For consultation on a difficult diagnosis, to refer a patient to one of our specialty practices, or to admit or transfer a patient, please call (877) 822-4453 [UC-CHILD]. Available 24/7, our Access Center staff ensures that you receive fast and efficient access to all of our services, including safe, expedient interfacility transport of your patients to UCSF Benioff Children’s Hospital.

To contact the Access Center, please call (877) 822-4453 [UC-CHILD].

Physician Liaison Service

Physician liaisons visit referring physicians and practice representatives throughout Northern California and Nevada to learn more about their referral needs and to provide information about the services and faculty expertise available at UCSF Benioff Children’s Hospital.

To contact the Physician Liaison Service, please call (800) 444-2559.

CME Courses

For more information, visit www.cme.ucsf.edu

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Dates</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>7th International Conference Neonatal and Childhood Pulmonary Vascular Disease</td>
<td>March 27-29, 2014</td>
<td>San Francisco</td>
</tr>
<tr>
<td>47th Annual Advances and Controversies in Clinical Pediatrics</td>
<td>June 5-7, 2014</td>
<td>San Francisco</td>
</tr>
<tr>
<td>Pediatric Hospital Medicine Boot Camp</td>
<td>June 19-21, 2014</td>
<td>San Francisco</td>
</tr>
</tbody>
</table>

A CHILDREN’S HOSPITAL LIKE NO OTHER
(CONTINUED FROM COVER)

helipad in San Francisco, enabling the transport of neonates from outlying hospitals that don’t offer the comprehensive specialty care that UCSF provides.

“The patient and family is at the center of everything we do, and one of the guiding principles of the project team has been to create a hospital that provides a healing environment with children- and family-friendly services, while providing an efficient place to work for our caregivers,” said Kim Scurr, RN, executive director of UCSF Benioff Children’s Hospital. “I have been involved in the planning for almost 10 years now, and it still seems surreal that we will be treating patients in this beautiful facility.”

To learn more about UCSF Benioff Children’s Hospital at Mission Bay, visit missionbayhospitals.ucsf.edu.